



To: Hayes Township Zoning Board of Appeals  
From: Jennifer McKay, Policy Director, Tip of the Mitt Watershed Council  
Date: February 1, 2022  
Subject: Determination of Ordinary High Water Mark

Per the Hayes Township Ordinance, Article II, adopted January 11, 2016, the Ordinary High Water Mark (OHWM) is defined as “The line between upland and bottomland that persists through successive changes in water levels, below which the presence and action of the water is so common or recurrent that the character of the land is marked distinctly from the upland and is apparent in the soil itself, the configuration of the surface of the soil, and the vegetation. On Lake Charlevoix the ordinary high water mark shall be the legally established lake level of 582.3 feet IGLD 1985, and on Lake Michigan the ordinary high water mark shall be the legally established lake level of 581.5 feet IGLD 1885.”

First, it is important to note that the definition Hayes Township adopted for the OHWM is based upon both the U.S. Army Corps of Engineers (USACE) and Michigan Department of Environment, Great Lakes, and Environment (EGLE) definitions of OHWM.

The U.S. Army Corps of Engineers Ordinary High Water Mark (OHWM) is a jurisdictional benchmark for administering its regulatory program in navigable waterways under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Federal regulations (33 CFR 328.3(e)) define the Ordinary High Water Mark as

*“...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.”*

EGLE’s definition of OHWM comes from Part 325, Great Lakes Submerged Lands Act, of the Natural Resources and Environmental Protection Act, Act 451 of 1994, as amended, as well as Part 325 administrative rules.

*"Ordinary high water mark" means the elevations set by the act. When the soil, configuration of the surface, or vegetation has been altered by man's activity, the ordinary high water mark shall be located where it would have been if this alteration had not occurred. For purposes of this part, the ordinary high-water mark shall be at the following elevations above sea level,*

*international Great Lakes datum of 1955: Lake Superior, 601.5 feet; Lakes Michigan and Huron, 579.8 feet; Lake St. Clair, 574.7 feet; and Lake Erie, 571.6 feet.*

While an elevation is provided in the definition of OHWM by EGLE, both agencies have historically regulated activity based upon the distinct mark in the land that separates upland from bottomland. They do so because of water level fluctuations. Water levels in Lake Michigan and Lake Charlevoix fluctuate on a daily, seasonal, and yearly basis. It is highly difficult for a regulatory body to demarcate the OHWM based on an elevation when water levels are consistently changing. In addition, regulating solely based on elevation would allow for projects to occur within inland lakes and streams and the Great Lakes without a permit during high water levels, if water levels exceed the regulatory elevation in statute.

If relying exclusively on elevation, the excavation and creation of the channel and basin could alter the elevation of the lake for regulated purposes. Excavation may move the OHWM inland if the dredging/excavation results in an elevation of 582.3 feet within the new basin. In order to determine the OHWM based upon elevation, the township would need to hire an engineer to delineate the OHWM within the new basin, taking into account the excavation.

Furthermore, as noted while the legally established lake level represents the ordinary high water mark, the federal and state agencies determine the actual OHWM by the definition – the line at a site in which physical characteristics along the shore are distinctly different based upon changes in water levels.

The OHWM and shoreline jurisdiction can move as the shoreline changes over time. The OHWM is not a static location, but rather a mark upon the land that may change over time in response to a number of factors including, but not limited to: accretion, consistency of pool elevations, erosion, groundwater, stormwater runoff, tributary inflows, waves, and wind. Most importantly, the OHWM can also change because of land use changes, such as excavation of a channel and/or basin. It is because of these factors that OHWM elevations may vary along the shoreline of the same lake.

When locating or determining the OHWM, one looks for obvious indicators of water along the shore. These indicators may include: stains on rocks or other shoreline structures, bare dirt, marks on trees, exposed roots running along the shore, changes in vegetation from water plants to upland plants. When the location of the shoreline changes, such as in the case of creation of a basin, one must look for the indicators of water along the newly created shoreline. The newly created shoreline will be subject to the presence and action of the water so common or recurrent that the character of the land will become marked distinctly from the upland and will be apparent in the soil itself, the configuration of the surface of the soil, and the vegetation, unless the new shoreline is blocked from water via artificial structures. In that case, the artificial structure will show indicators of presence of water such as stains. This will identify the OHWM.

## **Conclusion**

Based upon the information provided above, it is the formal opinion of the Tip of the Mitt Watershed Council that elevation is not the appropriate way to determine the Ordinary High Water Mark, as federal and state agencies use the actual definition similar to the definition provided in the Hayes Township Ordinance to determine jurisdiction - "The line between upland and bottomland that persists through successive changes in water levels, below which the presence and action of the water is so common or recurrent that the character of the land is marked distinctly from the upland and is apparent in the soil itself, the configuration of the surface of the soil, and the vegetation."

It is the formal opinion of Tip of the Mitt Watershed Council that the OHWM changes with land use and will follow the contour of the new shoreline, which will exhibit the characteristics of water presence.

Furthermore, it is the formal opinion of Tip of the Mitt Watershed Council that when the OHWM has changed location due to land use or other reason, the setback must occur from the new OHWM. Per Section 3.14 Waterfront Regulations, "no structures (with the exception of a patio/deck, walkway, retaining wall, launching ramps and / or docking facilities including steps) shall be allowed within one hundred (100) feet of the Ordinary High Water Mark on Lake Michigan and Lake Charlevoix." Changing an OHWM can also impact setbacks and other measurements. For example, if a house is built 75 feet from the OHWM (or what is believed to be the OHWM) and then the OHWM is moved 15 feet inland, the home is now only 60 feet from the OHWM. When the OHWM changes, the hundred foot setback must apply from the new OHWM.